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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/688,988

10/21/2003

Andrew Sean Gordon Daly

3985

466 7590 05/16/2007
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EXAMINER

ALI, SHUMAYA B

ART UNIT

PAPER NUMBER

3771

MAIL DATE

DELIVERY MODE

05/16/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/688,988

Applicant(s)

DALY, ANDREW SEAN GORDON

Examiner

Shumaya B. Ali

Art Unit

3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 February 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 13-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 13-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>2/16/07</u> . | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Election/Restrictions

Applicant cancelled claims 1-12 that were under restriction requirement. Thus, the election/restriction mailed on 6/6/05 is withdrawn.

Priority

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 13-21, and 23-25 are rejected under 35 U.S.C. 102(b) as being anticipated by Womack et al US 4,554,913.

As to claim 13, Womack discloses a tendon and ligament support (**figure 1**) for a limb joint having an anterior side and a posterior side comprising a first limb-embracing collar (**5**), a second limb-embracing collar (**7**), a connection means (**9,11**) for providing articulation and separation between the two collars, and means for securing the collars so as to embrace the limb

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respectively above and below the joint; wherein the connection means is adapted to provide limited ligament and/or tendon elongation under load, and comprises a resistance-exerting pivot **(13)** arrangement for providing articulation and separation between the two collars so as to exert a resistance to joint movement over a predetermined range of pivot rotation, in combination with essentially inelastic means **(6)** arranged across the posterior side of the joint so as to limit joint movement within said predetermined range of joint rotation.

As to **claim 14**, **Womack** discloses a tendon and ligament support as claimed in claim 13, wherein the connection means includes adjustment means **(29,29')** to vary said predetermined range of pivot rotation.

As to **claim 15**, **Womack** discloses a tendon and ligament support as claimed in claim 13, wherein the resistance-exerting pivot arrangement is arranged to exert progressively increasing resistance to joint as the pivot arrangement rotates under downward movement pressure **(hinge of Womack is well capable of performing the functional limitation as recited in claim 15)**.

As to **claim 16**, **Womack** discloses a tendon and ligament support as claimed in claim 13, in which the pivot arrangement is adapted to accommodate limited lateral joint movement **(hinge of Womack is well capable of performing the functional limitation as recited in claim 16)**.

As to **claim 17**, **Womack** discloses a tendon and ligament support as claimed in claim 13, in which the pivot arrangement includes one or more hinges **(medial and lateral hinge 13 of figure 1)**.

As to **claim 18, Womack** discloses 18 a tendon and ligament support as claimed in claim 13, in which the resistance-exerting pivot arrangement is provided with an adjustable brake (29,29'), or by a stop to prevent joint movement beyond said predetermined range of pivot rotation.

As to **claim 19, Womack** lacks explicit teachings of a tendon and ligament support as claimed in claim 13, in which the essentially inelastic means is provided by a connector of high tensile strength connected to one or more points on each of the first limb-embracing collar (2). However, it should be noticed that the inelastic member is connected to the collar(s) by some means as depicted in figure 1. Therefore, although not explicitly taught, Womack's support is considered to have a connector. Womack teaches the second limb-embracing collar is capable of mimicking an artificial tendon or ligament arrangement.

As to **claim 20, Womack** discloses a tendon and ligament support as claimed in claim 13, in which either said a first limb-embracing collar or said second limb-embracing collar comprises air intake entrances (**open knee area, see fig.1**) at the front face of the support, and comprises channels (**each collar forms a channel there through to accommodate user leg**) to allow coolant gas or liquid pass from one part of the support to another.

As to **claim 21, Womack** discloses a tendon and ligament support (**support of figure 1**) for a horse's fetlock joint having an anterior side and a posterior side comprising a cannon bone-embracing collar (5), a pastern bone-embracing collar (7), a connection means (11,9) for providing articulation and separation between the two collars, and means for securing the collars so as to embrace the horse's leg respectively above and below the fetlock joint; wherein the connection means is adapted to provide limited ligament and/or tendon elongation under load,

and comprises a resistance-exerting pivot arrangement (13) for providing articulation and separation between the two collars so as to exert a resistance to fetlock joint movement over a predetermined range of pivot rotation, in combination with essentially inelastic means (6) arranged across the posterior side of the fetlock joint so as to limit fetlock joint movement within said predetermined range of fetlock joint rotation.

As to claim 23, Womack discloses a tendon and ligament support as claimed in claim 13, wherein the resistance-exerting pivot arrangement is capable of being arranged to exert a substantially constant resistance to joint the pivot arrangement rotates under downward movement as pressure (col.3, lines 25-67, and col.4, lines 1-37).

As to claim 24, Womack discloses a tendon and ligament support as claimed in claim 13, wherein the resistance-exerting pivot arrangement is capable of being arranged to exert no resistance to joint movement unless the pivot arrangement rotates beyond said predetermined range of pivot rotation (col.3, lines 25-67, and col.4, lines 1-37).

As to claim 25, Womack discloses a tendon and ligament support as claimed in claim 13, wherein the resistance-exerting pivot arrangement is capable of being arranged to be locked in position so as to exert total resistance to joint movement in both flexion and extension when so required (col.3, lines 25-67, and col.4, lines 1-37).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person

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having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Womack et al US 4,554,913 in view of Kausek et al. US 4,633,867.

As to claim 22, Womack lacks a tendon and ligament support as claimed in claim 21, in which at least one of said collars further comprises a panel constructed from shock-absorbent composite materials adapted to provide protection to a horse's fore leg against over reach striking by the horse's hind leg. **However, Kausek teaches that an impact resistant material with sufficient flexibility to conform to the shape of the shin in an orthopedic collar panel (see col.3, lines 30-35 of Kausek). Therefore, it would have been obvious to one ordinary skill in the art to provide a panel to the support of Womack in order to resist impact as taught by Kausek.**

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Borendt (222,290) and Wittmann (40,071) are cited to teach tendon ligament joint.

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Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

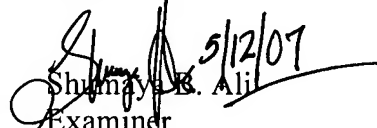
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

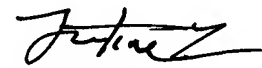
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shumaya B. Ali whose telephone number is 571-272-6088. The examiner can normally be reached on M-W-F 8:30am-5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on 571-272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Shumay B. Ali
Examiner
Art Unit 3771


JUSTINE R. YU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700
5/14/07